

AMENDMENTS TO THE SPECIFICATION

Please replace Paragraphs [0010], [0011], and [0012] with the following paragraph rewritten in amendment format:

[0010] Referring to FIG. 1, an exemplary rotary power tool 10 employing a blade clamp assembly 100 in accordance with the present invention is described. The rotary power tool 10, in this case a radial arm saw, includes a motor assembly 20 having an arbor 30 on which a rotary blade 40 (a rotary saw blade is illustrated) may be mounted. The arbor 30 is provided with a flange 50 (~~see FIGS. 8 and 10~~) against which the inner surface 60 of the rotary blade 40 is placed. The arbor is then held stationary (e.g., by engaging a pin with the motor shaft or the like) while the blade clamp assembly 100 is threaded into a threaded hole 70 formed within the arbor ~~20~~ 30, clamping the rotary blade 40 against the flange 50. Preferably, the blade clamp assembly 100 multiplies the torque that a user is capable of applying by hand to provide sufficient axial or clamping force to the rotary blade 40 to adequately secure the blade 40 to the arbor 30. The blade clamp assembly 100 thus allows a rotary blade 40 to be affixed to the arbor 30 of a rotary power tool 10, in particular to a rotary cutting tool such as a hand-held circular saw, a miter saw, a table saw, a radial arm saw, or the like, without the use of hand tools such as wrenches, which are typically required by prior art blade clamping assemblies. Preferably, the blade clamp assembly 100 is well balanced and has minimal protruding surfaces.

[0011] FIGS. 1 through 7 illustrate blade clamp assemblies 100 in accordance with exemplary embodiments of the present invention. In each embodiment, the blade clamp assembly 100 employs a planetary gear system 102 for multiplying the torque applied to clamp the rotary blade 40 to the arbor 30 of a rotary power tool (e.g., rotary power tool 10 shown in FIG. 1).

Preferably, the blade clamp assemblies 100 are suitable for use with rotary blades 40 commonly

used in rotary power tools such as miter saw, hand held circular saws, radial arm saws, table saws, and the like, employing circular saw blades. Such circular saw blades typically include a planar disk having cutting teeth for cutting the material of a work piece and a central aperture through which the blade is clamped to the arbor 30 of the rotary power tool 10. In the embodiments illustrated herein in FIG. 1, the rotary blade 40 shown comprises a circular saw blade 104 of the type having a plurality of cutting teeth 10 arranged about a planar disk 108. This saw blade 104 is exemplary of the types of rotary blades 40 that may be used with the blade clamp assembly 100 of the present invention. Thus, the cutting teeth 106 and planar disc ~~106~~ 108 shown are also exemplary. Nevertheless, it will be appreciated by those of ordinary skill in the art that the present invention is not limited to use with any particular rotary blade, and that the saw blades suitable for use by the present invention may employ a wide variety of cutting teeth and disc designs depending on the shaping operation or cut to be performed by the rotary tool.

[0012] In the exemplary embodiments shown in FIGS. 2 through 7, the blade clamp assembly 100 comprises a keyed blade washer 110 for engaging the rotary blade 40 to hold blade 40 against the flange 50 and a clamp assembly 112 threaded into the threaded hole ~~60~~ 70 formed in the arbor 30 for clamping the blade washer 110 against the blade 40. The planetary gear system 102 contained within the clamp assembly 112 transmits torque applied to the clamp assembly 112 to the blade washer 110, multiplying the torque transmitted to the blade washer 110 so that the torque transmitted to the blade washer 110 is greater than the torque applied to the clamp assembly 112 by the user.